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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/997,670 | 11/29/2001 | Sassan Tarahomi | 7104-83736 | 5767 |

7590 05/01/2003

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EXAMINER

PEDDER, DENNIS H

ART UNIT

PAPER NUMBER

3612

DATE MAILED: 05/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/997,670

Applicant(s)

TARAHOMI ET AL.

Examiner

Dennis H. Pedder

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: non-destructively removable from the recess, claim 4.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 20 are vague in "configured to be removeably replaced upon separation of the foam portion from the beam". There is no structural detail or means claimed that would enable one of ordinary skill to understand the bounds of this claim detail. For example, an open rear end to the foam, lack of adhesive for the matrix, conforming shapes of matrix and recess all could be intended, but none are specifically claimed. As a result the claims are indefinite under the statute.

Claim 4 is functional without means or structure for the function. Further, since applicant has disclosed that the fascia and foam portion are attached to the beam via bonding or brackets and the matrix may be molded within the foam, it is not clear if this claim is accurate or whether it represents an incorrect statement.

4. Claims 1-10, 13, 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ver Deutsche Metallwerke AG in view of Carbone et al. and Kuczynski et al. .

Ver Deutsche Metallwerke AG shows elongated beam 5, foam portion 3, fascia surrounding same being common knowledge in the art, a recess in the foam portion, and a metallic cylindrical cell matrix of hexagonal shape disposed in the recess and configured to absorb energy. The recess abuts a portion of the beam. The matrix is removably secured within the recess after formation of the foam portion by destructive cutting of the foam around a portion of the periphery.

Carbone et al. teaches a fascia 17 encapsulating a cylindrical cell matrix made of plastic or metal. Carbone et al. also teaches a hexagonal shape, but mentions also that the shape may be "any other suitable geometrical shape". It would have been obvious to one of ordinary skill in the art to provide in Ver Deutsche Metallwerke AG a fascia and plastic material as taught by Carbone et al. as a known alternative in the art. At the time of the invention, it was known in the art, for example, to utilize plastic as a weight savings.

Kuczynski et al. teaches that a cellular member within a foam substrate may be configured as a circular cylinder. As a result of this teaching, predating the disclosure of applicant, It would have been obvious to one of ordinary skill to provide in the references above a circular shape to the cylindrical member as taught by Kuczynski et al. for its known absorption characteristics.

As to claim 3, adhesive bonding of an insert within a foam material is not only common knowledge in the art, but an obvious expedient to secure.

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As to claim 4, process steps are not given patentable weight in a product claim (MPEP 2113). The matrix of Ver Deutsche may be removed without destroying the matrix as claimed.

As to claims 5-6, Ver Deutsche Metallwerke AG shows approximately 56 percent. The exact ratio of foam and recess is deemed to be a determination of a technician evaluated for each vehicle and weight to meet government standards.

As to claim 7, Ver Deutsche Metallwerke AG shows the matrix flush with the beam and foam interface.

As to claim 8, applicant admits the use of this material in the prior art, hence It would have been obvious to one of ordinary skill in the art to provide this material in the current bumper to meet low speed impacts.

As to claim 9, the determination of density as also one of a technician.

As to claim 13, formation of multiple recesses is merely an obvious duplication of parts to save weight in regions under low stress during FMVSS testing.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ver Deutsche Metallwerke AG in view of Carbone et al. and Kuczynski et al. as applied to claim 1 above and further in view of Glance.

It would have been obvious to one of ordinary skill in the art to provide in Ver Deutsche Metallwerke AG as modified by Carbone et al. a sandwiched absorber as taught by Glance sandwiched by panels 64.

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6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ver Deutsche Metallwerke AG in view of Carbone et al. and Kuczynski et al. and further in view of Hale.

It would have been obvious to one of ordinary skill in the art to provide in Ver Deutsche Metallwerke AG as modified by Carbone et al. a metal replacement of polyester sheet molded compound as taught by Hale as an equivalent in the art.

Response to Arguments

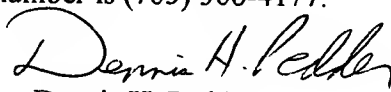
7. Applicant's arguments of April 14, 2003 are not persuasive.

Please see the detailed rejection above. Unless specific differences between the interface of the foam substrate and the bumper beam are claimed, it does not appear possible to offer patent protection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis H. Pedder whose telephone number is (703) 308-2178. The examiner can normally be reached on 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn D. Dayoan can be reached on (703) 308-3102. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-4195 for regular communications and (703) 305-3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-4177.


Dennis H. Pedder
Primary Examiner
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4/30/03

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DHP

April 30, 2003